## AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A compressed data structure suited for storing of a plurality of samples of compressed waveform data, segmented into a plurality of frames, into a memory, the memory being capable of storing n bits per address,

wherein a number of bits per sample of the compressed waveform data is variable between the frames, but uniform within each of the frames,

each of the frames of the compressed waveform data is stored over a predetermined number j of successive addresses of said memory, and

each of the frames includes, in a predetermined layout, an auxiliary information area for storing auxiliary information that includes compression-related information to be used for decompressing the compressed waveform data, and a data area for storing a plurality of samples of the compressed waveform data of the frame, wherein irrespective of the number of bits per sample of compressed waveform data stored in said data area of each frame, each frame is stored over said predetermined number j of successive addresses, wherein said auxiliary information area and data area in each frame are fixed in position irrespective of the number of bits per sample of compressed waveform data stored in the frame, and wherein said compression-related information includes number-of-bits information indicative of said number of bits per sample within the corresponding one of the frames.

Claim 2 (currently amended): A compressed data structure as claimed in claim 1 wherein said data area ranges over a plurality of addresses in the j successive addresses irrespective of the number of bits per sample of the compressed waveform data stored in the data area of each frame, and the data area region in each of said plurality of addresses compactly stores a plurality of samples of the compressed waveform data.

Claim 3 (previously presented): A memory storing compressed waveform data of a plurality of frames having a compressed data structure as defined in claim 1.

Claim 4 (previously presented): A tone generation apparatus comprising:

a memory as defined in claim 3;

an address generation section that generates, every sampling cycle, a readout address varying at a predetermined rate corresponding to a designated tone pitch;

a readout section that designates, on the basis of said readout address, any one of the frames to be read out and reads out stored data of the designated frame from said memory address by address;

an auxiliary information retrieval section that, of the data of the frame read out by said readout section, retrieves the auxiliary information from the auxiliary information area;

a compressed waveform data retrieval section that, of the data of the frame read out by said readout section, retrieves the samples of the compressed waveform data from the data area in accordance with the number of bits per sample designated by said number-of-bits information included in the auxiliary information retrieved by said auxiliary information retrieval section;

a decoding section that decompresses each of the samples of the compressed waveform data retrieved by said compressed waveform data retrieval section; and

a tone generation section that generates a tone on the basis of the waveform data decompressed by said decoding section.

Claim 5 (canceled)

Claim 6 (currently amended): A waveform storage processing apparatus comprising:

a compression processing section that compresses a plurality of samples of waveform data;

a framing section that segments the plurality of samples of waveform data, compressed by said compression processing section, into a plurality of frames to thereby form the frames, wherein each of the frames has a fixed total number of bits and includes a fixed auxiliary information area and a remaining data area, by packing the compressed and segmented waveform data into the data area and packing compression-related information into the auxiliary information area, wherein a number of bits per sample of the packed waveform data is uniform within each of the frames but variable between the frames, wherein irrespective of the number of bits per sample of compressed waveform data stored in said data area of each frame, each frame is stored over said predetermined number j of successive addresses, and said compression-related information includes number-of-bits information indicative of said number of bits per sample within the corresponding one of the frames and decompression parameters to be used for the decompression of said compressed waveform data in the corresponding one of the frames; and

a writing section that, for each of the frames, writes the frame, formed by said framing section, into memory capable of storing n bits per address, over a predetermined number j of successive addresses.

Claim 7 (previously presented): A compressed data structure as claimed in claim 1, wherein m bits of the n bits (where $m < n$) in the j addresses of said memory contain said data area, and a remaining "n-m" bits of the n bits in the j addresses of said memory contain said auxiliary information area.

Claim 8 (original): A compressed data structure as claimed in claim 7 wherein m is k times a number of bits i per sample of the compressed waveform data of the frame, where k is an integral number equal to or greater than one.

Claim 9 (previously presented): A memory storing a plurality of frames of compressed waveform data having a compressed data structure as defined in claim 7.

Claim 10 (previously presented): A tone generation apparatus as claimed in claim 4, wherein m bits of the n bits (where m < n) in the j addresses of said memory contain said data area, and a remaining "n – m" bits of the n bits in the j addresses of said memory contain said auxiliary information area, and

wherein said auxiliary information retrieval section retrieves the auxiliary information by taking out the data of "n-m" bits from the data of the n bits, successively read out by said read out section, and

wherein said compressed waveform data retrieval section further comprises a temporary storage section that stores the data of the m bits among the data of n bits, successively read out by said read out section, and said compressed waveform data retrieval section retrieves the samples by taking out each of the samples of compressed waveform data from the data of the m bits stored in said temporary storage section, in accordance with the readout address generated by said address generation section and the number of bits per sample designated by said number-of-bits information.

Claim 11 (previously presented): A tone generation apparatus as claimed in claim 10 wherein said temporary storage section is capable of storing one or a plurality of, less than j, the data of the m bits.

Claim 12 (original): A waveform storage processing apparatus comprising:

a storage section having a plurality of addresses each having a data width of n bits;

a segmentation section that segments input waveform data into a plurality of frames;

a compression section that, for each of the frames, performs a compression process on the waveform data to thereby generate compressed waveform data of m/k bits;

an auxiliary information generation section that, for each of the frames, generates auxiliary information including compression information indicative of a form of the compression process performed on the frame;

a to-be-written data formation section that, for each of the frames, forms a predetermined number j of to-be-written data of n bits on the basis of data of m bits formed by retrieving samples of the compressed waveform data, k samples at a time, and data of (n - m) bits sequentially retrieved from the auxiliary information of the frame; and

a writing section that sequentially writes the j to-be-written data, formed for each of the frames, to a predetermined number j of successive addresses of said storage section.

Claims 13-32 (canceled)

Claim 33 (previously presented): A compressed data structure as claimed in claim 1, wherein said compression-related information further includes decompression parameters to be used for the decompression of said compressed waveform in the corresponding one of the frames.

Claim 34 (previously presented): A compressed data structure as claimed in claim 1, wherein said auxiliary information further includes loop addresses to be used for generation of a tone.

Claim 35 (previously presented): A tone generation apparatus as claimed in claim 4, wherein said compression-related information further includes decompression parameters to be used for the decompression of said compressed waveform in the corresponding one of the frames, and said decoding section decompresses each of the samples of the compressed waveform data, using the decompression parameters included in the auxiliary information retrieved by said auxiliary information retrieval section.

Claim 36 (previously presented): A tone generation apparatus as claimed in claim 35, wherein said decompression parameters are parameters created on the basis of compression parameters used in compressing original waveform data to create said compressed waveform data.

Claim 37 (previously presented): A tone generation apparatus as claimed in claim 35, wherein said decompression parameters are loop addresses for repetitively reading out said compressed waveform data.

Claim 38 (previously presented): A tone generation apparatus as claimed in claim 10, wherein said number-of-bits information in the auxiliary information included in one of the frames indicates said number of bits per sample within the next frame.

Claim 39 (previously presented): A tone generation apparatus as claimed in claim 10, wherein said number-of-bits information in the auxiliary information included in one of the frames indicates said number of bits per sample within the one frame.

Claim 40 (previously presented): A tone generation apparatus as claimed in claim 10, wherein said compression-related information further includes decompression parameters to be used for the decompression of said compressed waveform in the corresponding one of the frames, and said decoding section decompresses each of the samples of the compressed waveform data, using the decompression parameters included in the auxiliary information retrieved by said auxiliary information retrieval section.

Claim 41 (previously presented): A tone generation apparatus as claimed in claim 40, wherein the decompression parameters in the auxiliary information included in one of the frames are used for the decompression of at least one sample of the waveform data included in the next frame.

Clam 42 (previously presented): A tone generation apparatus as claimed in claim 40, wherein the decompression parameters in the auxiliary information included in one of the frames are used for the decompression of at least one sample of the waveform data included in the next frame.

Claim 43 (previously presented): A tone generation apparatus as claimed in claim 10, wherein said auxiliary information retrieval section gathers the "n-m" bits of the n bits read out by said readout section during each of the frames and, after completion of the gathering of each of the frames, outputs the thus-gathered auxiliary information.

Claim 44 (previously presented): A tone generation apparatus as claimed in claim 40, wherein said auxiliary information retrieval section gathers the "n-m" bits of the n bits read out by said readout section during a predetermined range in each of the frames and, after completion of the gathering of the range, outputs the thus-gathered decompression parameters.

Claim 45 (new): A waveform storage processing apparatus as claimed in claim 12 wherein the (n - m)-bit data of the n-bit data of one frame stored at the j successive addresses in said storage section comprises an auxiliary information area of the frame for storing the auxiliary information and the m-bit data of the n-bit of one frame stored at the j successive addresses in said storage section comprises a data area of the frame for storing the compressed waveform data.

Claim 46 (new): A waveform storage processing apparatus as claimed in claim 12 wherein the bit-number m/k of the compressed waveform is variable between the frames and a particular number of samples of the waveform data, corresponding to the bit-number m/k for one frame, are segmented into the frame by said segmentation section.